

REMARKS AND RESPONSES

The Examiner is kindly requested to proceed with the reconsideration of this amendment.

Claims 1, 10, 12, 14 and 21-25 have been amended, and claims 2, 3 and 11 were canceled. Claims 26-28 have been newly added. Support for the amendments is found in the specification and claims as filed. Accordingly, the amendments do not constitute the addition of new matter. Reconsideration of the application in view of the foregoing amendments and following comments is respectfully requested.

Claim Objections

With respect to point 7 of the Office Action, claims 21-23 are objected to because of containing informalities. As shown in amended claims 21-23, all informalities have been eliminated.

Claim Rejection - 35 U.S.C. §112

With respect to point 9 of the Office Action, claim 12 is rejected under 35 U.S.C. §112, second paragraph because there is insufficient antecedent basis for the limitation “the materials of the heat pipe”.

The limitation “the materials of the heat pipe” has been replaced by -- the heat pipe is made from materials --, and thus the amended claim 12 does not contain any indefiniteness.

Accordingly, Applicant respectfully submits that the rejections under 35 U.S.C. §112 should be withdrawn.

Reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejection - 35 U.S.C. §102

With respect to point 11 of the Office Action, claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Gray (US Patent No. 3,999,400).

The amended claim 1 recites a heat dissipation module comprising a fan and a heat sink. The fan has a rotor and a shaft with a first end and an opposite second end. The first end of the shaft penetrates a hub of the rotor and is physically in contact with a heat-generating element, wherein the rotor is rotatably connected with the shaft. The heat sink is connected to the second end of the shaft. The shaft is a heat pipe, and the fan is disposed between the heat sink and the heat-generating element.

However, Gray fails to disclose all features as expressly recited in the amended claim 1. The Examiner is invited to Fig. 6 of Gray, the feature “the first end of the heat pipe is physically in contact with a heat-generating element” is not disclosed because either end of the rotating shaft (70) is connected to air, which does not generate heat by itself, and also the feature “the rotor is rotatably connected with the shaft” is not disclosed.

Since Gray fails to disclose each and every limitation of the amended claim 1, Applicant respectfully submits that claim 1 clearly define over the disclosures of Gray. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Claim Rejection - 35 U.S.C. §103

With respect to point 13 of the Office Action, claims 10, 14, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray.

With respect to point 14 of the Office Action, claims 12 and 13 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Siemens AG (CH 516251).

Of rejected claims, only claim 10 is independent.

Before proceeding further, it is appropriate to note that MPEP 2143 advises (with emphasis added) that:

If proposed modification would render the prior art invention being modified **unsatisfactory for its intended purpose**, then there is **no suggestion or motivation** to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

As to claim 10, the Office Action asserted (point 13 in page 4) that “While Gray fails to disclose that the rotor 12 is rotatably connected to the heat pipe 16 and that the stator assembly is fixed on the heat pipe as recited in claim 10, this configuration merely represents an obvious reversal of parts as disclosed by Gray and fails to impart patentability.”

The Applicant submits that the part reversal of the rotor (12) and the stator (11) in Gray as the OA suggested does not make any sense to persons skilled in the art because such part reversal would render Gray’s invention unable to operate for its intended purpose. In particular (see Fig. 2 and col. 6, lines 23-27), Gray’s invention requires the auger blades (19) to act as a blower in order to force air through apertures (21), across the rotor (12) and stator windings, and out of opposite side of the housing (10) via vents (22). Therefore, it is essential that the core (13) be fixed on the rotor (12) so as to rotate auger blades (19) thereon. In case the core (13) is fixed on the stator (11), the auger blades (19) are unable to rotate as a blower and its intended purpose is thus impossible to achieve.

In sum, the OA’s proposed modification, i.e. the part reversal of the rotor (12)

and the stator (11), would render Gray's invention unsatisfactory for its intended purpose, i.e. the auger blades (19) act as a blower. Therefore, it would have been unobvious for persons skilled in the art to modify Gray's invention to meet limitations of claim 10 as the OA's proposed modification. Claim 10 and its dependent claims 12-14 and 24-25 are thus patentable over the prior of record.

With respect to point 15 of the Office Action, claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Siemens AG (CH 516251).

With respect to point 16 of the Office Action, claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray.

Of rejected claims, only claim 21 is independent.

Amended claim 21 recites a heat dissipation module comprising a fan and a heat sink. The fan has a rotor and a shaft with a first end and an opposite second end. The first end of the shaft penetrates a hub of the rotor and is physically in contact with a heat-generating element. The heat sink is connected to the second end of the shaft. The fan is disposed between the heat sink and the heat-generating element. The shaft is made from materials selected from the group consisting of aluminum, copper, aluminum alloy, copper alloy and compounds thereof.

However, Gray fails to disclose all features as expressly recited in the amended claim 21. The Examiner is invited to Fig. 6 of Gray, the feature "the first end of the shaft is physically in contact with a heat-generating element" is not disclosed because either end of the rotating shaft (70) is connected to air, which does not generate heat by itself and cannot be regarded as a heat-generating element, and the feature "the fan is disposed between the heat sink and the heat-generating element" is not disclosed.

Since Gray fails to disclose each and every limitation of the amended claim 21, Applicant respectfully submits that claim 21 and its dependent claim 23 clearly define over the disclosures of Gray.

Claim 22 depends from claim 1 and adds further limitations thereto, and is thus patentable over Gray along with amended claim 1 as discussed above.

Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Conclusions

For all of the above reasons, applicant submits that the specification and claims are now in proper form, and that the claims define patentably over prior arts. Therefore, applicant respectfully requests issuance for this case at the Office Action's earliest convenience.

Applicants believe that no fees are required in the filing of this Response. However, if it is determined that any fees are required, the Commissioner is authorized to charge such fees to our Deposit Account No. 50-0805 (Order No. JLINP174/TLC). Should the Examiner have any questions concerning this matter, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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